

# NOTES ON THE RAINFOREST OF THE UPPER ADELAIDE RIVER



by Peter Fogarty \*

This note documents the distribution and composition of rainforest communities in the Upper Adelaide River Valley.

The rainforest occurs as very distinct pockets, directly associated with perennial streams and springs, in the area between Adelaide River township and the Daly River Road (see Map). The pockets vary in size from approximately 2 to 20 hectares.

The springlines are associated with a number of conspicuous lithological discontinuities. The Darwin member of the horizontally bedded Bathurst Island sediments overlies both Lower and Upper Proterozoic folded sediments. This forms the extensive plateau surface and scarp south of Adelaide River town. The boundary between the two rock types is the source of a number of springs which feed into gorges, where rainforest has been able to develop (Robyn Falls is a notable, though small example). The gorge situation would also offer some degree of fire protection.

There are also a number of springlines associated with faultlines which dissect the Upper Proterozoic Tolmer Group of sediments (predominantly sandstone). One such faultline is also associated with a boundary between the Tolmer Group, and the Lower Proterozoic Burrell's Creek sediments (tightly folded siltstones and greywacke). (See the Burnside 1:63 360 geological sheet).

In all, 13 springlines have been identified, with associated rainforest community. Many of the elements are also distributed through the levee community of the Adelaide River, and in places are sufficiently dense to be classified as rainforest.

Access to the area is not well developed and human impact on the communities does not appear significant. Infrequent burning may have had some impact on species composition along the fringes, and would in part contribute to the abundance of the exotic *Hyptis* in this situation. Pigs have had a marked impact, and are present in large numbers owing to the suitability of the habitat (100% shade, perennial water). They appear to have destroyed much of the ground vegetation by trampling and rooting for food. They have also created stagnant muddy pools in what would originally have been clear flowing streams. The aesthetic appeal is in places reduced also, by a rather pervasive smell of pigs.

The species composition of the rainforest is as follows:

(i) Gorge areas

*Myristica insipida* (nutmeg)  
*Timonius timon*  
*Carpentaria acuminata*  
*Terminalia erythrocarpa*  
*Tristania suaveolens*  
*Vavaea australiana*  
*Canarium australianum*  
*Ficus* spp.  
*Morinda* sp.  
*Eucalyptus ptychocarpa*  
*Osbeckia australiana*

Immediately adjacent to the springline, but on rocky and slightly elevated ground, *Callitris intratropica* and *Casuarina australianum* occurred.

- (ii) Springlines on flat to gently undulating terrain (west side of river).

*Carpentaria acuminata*  
*Schefflera actinophylla*  
*Terminalia sericocarpa*  
*Terminalia erythrocarpa*  
*Canarium australianum*  
*Timonius timon*  
*Cleistocalyx operculata*  
*Melaleuca cajaputi* (fringes)  
*Gmielina dalrympleana*

*Sterculia* sp.  
*Ficus* spp.  
*Nauclea coadunata* (Leichhardt pine)  
*Vavaea australiana*

This list is by no means complete. However, the most common species are defined, and it provides some idea of the diversity of plant life which these rainforest areas represent.

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